

FORM PTO-1449 (modified)
 To: U.S. Department of Commerce
 (PW FORM PAT-1449)
 Patent and Trademark Office

Atty. Dkt. No.	M#	Client Ref.
	306526	P-1598.010-US

Applicant: Antonius T. A. M. DERKSEN et al.

Appln. No.: Unknown

Filing Date: November 12, 2003

Date: November 12, 2003 Page 1 of 3 Examiner: Unknown Group Art Unit: Unknown

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (If appropriate)
PK	AR 3,573,975	04/1971	Dhaka et al.	117	212	
	BR 3,648,587	03/1972	Stevens	95	44	
	CR 4,346,164	08/1982	Tabarelli et al.	430	311	
	DR 4,396,705	08/1983	Akeyama et al.	430	326	
	ER 4,480,910	11/1984	Takanashi et al.	355	30	
	FR 4,509,852	04/1985	Tabarelli et al.	355	30	
	GR 5,040,020	08/1991	Rauschenbach et al.	355	53	
	HR 5,121,256	06/1992	Corle et al.	359	664	
	IR 5,610,683	03/1997	Takahashi	355	53	
	JR 5,715,039	02/1998	Fukuda et al.	355	53	
	KR 5,825,043	10/1998	Suwa	250	548	
	LR 5,900,354	05/1999	Batchelder	430	395	
↓	MR 6,191,429	02/2001	Suwa	250	548	
PK	NR 6,560,032	05/2003	Hatano	359	656	

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclose	No
PK	OR WO 99/49504	09/1999	PCT	Fukami et al.	X		X	
	PR EP 0023231	02/1981	Europe	Tabarelli et al.	X			
	QR EP 0418427	03/1991	Europe	Miyake	X		X	
	RR EP 1039511	09/2000	Europe	Murakimi et al.	X		X	
	SR DD 224448	07/1985	German	Hesse et al.			X	
	TR DD 242880	02/1987	German	Kuch			X	
	UR FR 2474708	07/1981	France	Letellier			X	
PK	VR JP 62-065326	03/1987	Japan	Moriuchi	X			
PK	WR JP 62-121417	06/1987	Japan	Nakazawa	X			
PK	XR JP 63-157419	06/1988	Japan	Nakasuji	X			

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

PK	YR	EP Search Report for EP 02257938 dated September 25, 2003
	ZR	M. Switkes et al., "Immersion Lithography at 157 nm", MIT Lincoln Lab, Orlando 2001-1, December 17, 2001
	AAR	M. Switkes et al., "Immersion Lithography at 157 nm", J. Vac. Sci. Technol. B., Vol. 19, No. 6, November/December 2001, pp. 2353-2356
PK	BBR	M. Switkes et al., "Immersion Lithography: Optics for the 50 nm Node", 157 Anvers-1, September 4, 2002

Examiner *[Signature]* Date Considered: 3/18/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified) To: U.S. Department of Commerce (PW FORM PAT-1449) Patent and Trademark Office				Atty. Dkt. No.	M#	Client Ref.
					306781	P-0381.010-US
				Applicant: Joeri LOF et al.		
				Appln. No.: Unknown		
				Filing Date: November 12, 2003		
Date: November 12, 2003		Page 2 of 3	Examiner: Unknown		Group Art Unit: Unknown	

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
PL	CCR	6,603,130	08/2003	Bisschops et al.	250	492.1	
	DDR	6,633,365	10/2003	Suenaga	355	53	
	EER	2002/0163629	11/2002	Switkes et al.	355	53	
↓	FFR	2003/0123040	07/2003	Almogy	355	69	
PL	GGR	2003/0174408	09/2003	Rostalski et al.	359	642	
	HHR						
	IIR						
	JJR						
	KKR						
	LLR						
	MMR						
	NNR						
	OOR						
	PPR						

FOREIGN PATENT DOCUMENTS

		Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
						Enclosed	No	Enclose	No
PL	QQR	JP 04-305915	10/1992	Japan	Ozeki et al.	X			
	RRR	JP 04-305917	10/1992	Japan	Ozeki et al.	X			
	SSR	JP 06-124873	05/1994	Japan	Takahashi	X		X	
	TTR	JP 07-220990	08/1995	Japan	Fukuda et al.	X			
	UUR	JP 10-228661	08/1998	Japan	Kurokawa	X			
	VVR	JP 10-255319	09/1998	Japan	Suenaga et al.	X			
↓	WWR	JP 10-303114	11/1998	Japan	Suwa	X		X	
↓	XXR	JP 10-340846	12/1998	Japan	Kudo	X		X	
PL	YYR	JP 2001-091849	04/2001	Japan	Aizaki et al.	X			
	ZZR								

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

PL	AAAR	B.J. Lin, "Drivers, Prospects and Challenges for Immersion Lithography", TSMC, Inc., September 2002				
PL	BBBR	B.J. Lin, "Proximity Printing Through Liquid", IBM Technical Disclosure Bulletin, Vol.20, No. 11B, April 1978, p. 4997				

Examiner *PL* Date Considered: *3/18/05*

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified) To: U.S. Department of Commerce (PW FORM PAT-1449) Patent and Trademark Office	Atty. Dkt. No.	M#	Client Ref.
		306781	P-0381.010-US

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Date: November 12, 2003

Page **3** of **3**

Applicant: **Joeri LOF et al.**

Appn. No.: **Unknown**

Filing Date: **November 12, 2003**

Examiner: **Unknown** Group Art Unit: **Unknown**

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
CCC						
DDD						
EEE						

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract	Translation Readily Available
					Enclosed	No
	FFFF					
	GGG					

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

<i>Pl</i>	HHH	B.J. Lin, "The Paths To Subhalf-Micrometer Optical Lithography", SPIE Vol. 922, Optical/Laser Microlithography (1988), pp. 256-269				
	IIIR	G.W.W. Stevens, "Reduction of Waste Resulting from Mask Defects", Solid State Technology, August 1978, Vol.21 008, pp. 68-72				
	JJJR	S. Owa et al., "Immersion Lithography; its potential performance and issues", SPIE Microlithography 2003, 5040-186, February 27, 2003				
	KKK	S. Owa et al., "Advantage and Feasibility of Immersion Lithography", Proc. SPIE 5040 (2003)				
	LLLR	Nikon Precision Europe GmbH, "Investor Relations – Nikon's Real Solutions", May 15, 2003				
	MMM	H. Kawata et al., "Optical Projection Lithography using Lenses with Numerical Apertures Greater than Unity", Microelectronic Engineering 9 (1989), pp. 31-36				
	NNN	J.A. Hoffnagle et al., "Liquid Immersion Deep-Ultraviolet Interferometric Lithography", J. Vac. Sci. Technol. B., Vol. 17, No. 6, November/December 1999, pp. 3306-3309				
	OOO	B.W. Smith et al., "Immersion Optical Lithography at 193nm", FUTURE FAB International, Vol. 15, July 11, 2003				
<i>Pl</i>	PPP	H. Kawata et al., "Fabrication of 0.2μm Fine Patterns Using Optical Projection Lithography with an Oil Immersion Lens", Jpn. J. Appl. Phys. Vol. 31 (1992), pp. 4174-4177				
<i>Pl</i>	QQQ	G. Owen et al., "1/8μm Optical Lithography", J. Vac. Sci. Technol. B., Vol. 10, No. 6, November/December 1992, pp. 3032-3036				
	RRR					
	SSS					
	TTT					
	UUU					
	VVV					
	WW					
	XXX					
	YYY					

Examiner *P. J. K.*

Date Considered: *3/18/05*

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
 To: U.S. Department of Commerce
 (PW FORM PAT-1449)
 Patent and Trademark Office



Atty. Dkt. No.	M#	Client Ref.
081468	0306526	P-1598.010-US

Applicant: Antonius T.A.M. DERKSEN et al.

Appln. No.: 10/705,785

Filing Date: November 12, 2003

Examiner: Unassigned Group Art Unit: Unassigned

Date: February 20, 2004

Page 1 of 1

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
PL	AR 2004/0000627A1	01/01/2004	Karl-Heinz SCHUSTER			
ZL	BR 6,600,547	07/29/2003	WATSON et al.			
ZK	CR 2004/0021844 A1	02/05/2004	Yutaka SUENAGA			
DR						
ER						
FR						
GR						
HR						
IR						
JR						
KR						
LR						
MR						
NR						

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Endose	No
OR								
PR								
QR								
RR								
SR								
TR								
UR								
VR								
WR								
XR								

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

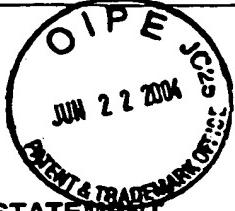
PL	YR	H. Hogan, "New Semiconductor Lithography Makes a Splash", PHOTONICS SPECTRA, Photonics TechnologyWorld, October 2003 Edition, pgs. 1-3		
ZL	ZR	S. Owa and N. Nagasaka, "Potential Performance and Feasibility of Immersion Lithography", NGL Workshop 2003, July 10, 2003, Slide Nos. 1-33.		
	AAR			
	BBR			
	CCR			
	DDR			

Examiner *Pete B. Johnson*

Date Considered: *3/18/05*

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
To: U.S. Department of Commerce
(PW FORM PAT-1449)
Patent and Trademark Office



Atty. Dkt. No.	M#	Client Ref.
	306526	P-1598.010-US

Applicant: DERKSEN et al.

Appln. No.: 10/705,785

Filing Date: November 12, 2003

Date: June 22, 2004 Page 1 of 1 Examiner: Group Art Unit: 2882

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
PL	AR	2004/0075895 A1	04/2004	LIN			
PL	BR	2004/0109237 A1	06/2004	EPPELLE et al.			
	CR						
	DR						
	ER						
	FR						
	GR						
	HR						

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclose	No
PL	IR JP 07-132262	05/1995	JAPAN	HIRAKAWA et al.		X		
	JR JP 58-202448	11/1983	JAPAN	KAWAMURA et al.		X		
	KR WO2004/019128	03/2004	PCT	OMURA et al.				
	LR WO 03/077037	09/2003	PCT	ROSTALSKI				
	MR WO 03/077036	09/2003	PCT	SCHUSTER		X		
PL	NR DD 206 607	02/1984	GERMANY	WESTPHAL et al.			X	
PL	OR DD 221 563	04/1985	GERMANY	PFORR et al.			X	
	PR							
	QR							

OTHER (including in this order: Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

PL	RR	S. OWA et al., "Update on 193nm immersion exposure tool", Litho Forum, International SEMATECH, Los Angeles, January 27-29, 2004, Slide Nos. 1-51		
	SR	H. HATA, "The Development of Immersion Exposure Tools", Litho Forum, International SEMATECH, Los Angeles, January 27-29, 2004, Slide Nos. 1-22		
	TR	T. MATSUYAMA et al., "Nikon Projection Lens Update", SPIE Microlithography 2004, 5377-65, March, 2004		
	UR	"Depth-of-Focus Enhancement Using High Refractive Index Layer on the Imaging Layer", IBM Technical Disclosure Bulletin, Vol. 27, No. 11, April 1985, p. 6521		
PL	VR	A. SUZUKI, "Lithography Advances on Multiple Fronts", EEdesign, EE Times, January 5, 2004		
PL	WR	B. LIN, "The k_3 coefficient in nonparaxial λ/NA scaling equations for resolution, depth of focus, and immersion lithography, J. Microlith., Microfab., Microsyst. 1(1):7-12 (2002)		
	XR			
	YR			
	ZR			

Examiner *Beta B. Lin*

Date Considered: *3/18/05*

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
 To: U.S. Department of Commerce
 (PW FORM PAT-1449)
 Patent and Trademark Office



Atty. Dkt. No.	M#	Client Ref.
	0306526	P-1598.010-US

Applicant: DERKSEN et al.

Appln. No. : 10/705,785

Filing Date: November 12, 2003

INFORMATION DISCLOSURE STATEMENT
 BY APPLICANT

Date: January 6, 2005

Page **1** of **1**

Examiner: Unknown

Group Art Unit: 2882

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
PK	AR	4,390,273	06/1983	LOEBACH et al.	355	125	
	BR	6,236,634 B1	05/2001	LEE et al.	369	112	
	CR	2002/0020821	02/2002	VAN SANTEN et al.	250	492	
PL	DR	2004/0119954	06/2004	KAWASHIMA et al.	355	30	
	ER	2004/0425951	07/2004	KRAUTSCHIK	355	53	

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclosed	No
PK	FR	JP 2004-193252	07/2004	JAPAN	Not Available		X	
PK	GR	JP 11-176727	07/1999	JAPAN	SHIRAISHI		X	
PK	HR	JP 2000-058436	02/2000	JAPAN	FUJISHIMA et al.		X	
PL	IR	WO 2004/053950 A1	06/2004	PCT	OWA		X	
	JR	WO 2004/053951-A1	06/2004	PCT	MAGOME et al.		X	
	KR	WO 2004/053952 A1	06/2004	PCT	MAGOME et al.		X	
	LR	WO 2004/053953 A1	06/2004	PCT	NEI et al.		X	
	MR	WO 2004/053954 A1	06/2004	PCT	NEI et al.		X	
	NR	WO 2004/053955 A1	06/2004	PCT	HIRUKAWA et al.		X	
	OR	WO 2004/053956 A1	06/2004	PCT	NAGASAKA et al.		X	
	PR	WO 2004/053957 A1	06/2004	PCT	HIDAKA et al.		X	
	QR	WO 2004/053958 A1	06/2004	PCT	MIZUTANI et al.		X	
	RR	WO 2004/053959 A1	06/2004	PCT	SHIRAI		X	
	SR	WO 2004/053596 A2	06/2004	PCT	GRAUPNER		X	
	TR	WO 2004/055803 A1	07/2004	PCT	VAN SANTEN		X	
PL	UR	WO 2004/057589 A1	07/2004	PCT	NEIJZEN et al.		X	
PL	VR	WO 2004/057590 A1	07/2004	PCT	VAN SANTEN et al.		X	

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

WR			
XR			
YR			
ZR			
AAR			
BBR			
CCR			
DDR			

Examiner *Bob T K*

Date Considered: *3/18/05*

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.